

WHAT IS CLAIMED IS:

1. A picture data reproducing apparatus which reproduces compressed picture data recorded to a recording medium according the MPEG standard, the apparatus comprising:
  - a storage means for storing compressed picture data read from a recording medium;
  - an STC generating means for generating, for a normal-speed reproduction, STC ( $STC_d$ ) sequentially from a set initial value, wherein the STC ( $STC_d$ ) is delayed a fixed time ( $System\_delay$ ) from STC ( $STC_{medium}$ ) of the compressed picture data read from the recording medium;
  - a read control means for sequentially reading compressed picture data stored in the storage means on the basis of  $STC_d$  generated by the STC generating means; and
  - a decoding means for decoding the compressed picture data read by the read control means to generate picture data for display;
  - the STC generating means setting, at shift from a variable-speed reproduction to normal-speed reproduction, the initial value on the basis of a result of comparison between PTS ( $PTS_s$ ) of the display picture data at the shift and  $STC_{medium}$  at the shift - (amount of delay due to the shift ( $shift\_delay$ ) +  $System\_delay$ ).

2. The apparatus as set forth in claim 1, wherein the STC generating means sets the initial value as “ $STC_{medium}$  at the time of shift - ( $shift\_delay$  +  $System\_delay$ )” at the shift from the variable-speed reproduction to normal-speed

reproduction when the following requirement is met:

$$\text{PTS\_s} \geq \{\text{STC\_medium at the time of shift} - (\text{shift\_delay} + \text{System\_delay})\}$$

3. The apparatus as set forth in claim 2, further comprising a shifting means for shifting the recording medium reproduction mode from the variable-speed reproduction to normal-speed reproduction at a time set as the initial value by the STC generating means in units of a picture or in units of a GOP (group of pictures).

4. The apparatus as set forth in claim 1, wherein the STC generating means sets the initial value as PTS\_s at the shift from the variable-speed reproduction to normal-speed reproduction when the following requirement is met:

$$\text{PTS\_s} < \{\text{STC\_medium at the time of shift} - (\text{shift\_delay} + \text{System\_delay})\}$$

5. The apparatus as set forth in claim 4, further comprising a shifting means for shifting the recording medium reproduction mode from the variable-speed reproduction to normal-speed reproduction in units of a picture or in units of a GOP (group of pictures) at a time delayed a time “adjust\_delay” defined as given below from a time when the STC generating means sets the initial value:

$$\text{Delay time (adjust\_delay)} = (\text{STC\_medium at the shift} - \text{PTS\_s}) - (\text{shift\_delay} + \text{System\_delay})$$

6. The apparatus as set forth in claim 1, further comprising a TS packetizing means for TS-packetizing of only compressed picture data to be

reproduced in the normal-speed reproduction mode.

7. A picture data reproducing method of reproducing compressed picture data recorded to a recording medium according the MPEG standard, the method comprising the steps of:

storing compressed picture data read from a recording medium;

generating, for a normal-speed reproduction, STC (STC\_d) sequentially from a set initial value, wherein the STC (STC\_d) is delayed a fixed time (System\_delay) from STC (STC\_medium) of the compressed picture data read from the recording medium;

sequentially reading compressed picture data stored in the storage means correspondingly STC\_d generated by the STC generating means; and

decoding the compressed picture data read by the read control means to generate picture data for display;

in the STC generating step, the initial value being set at shift from a variable-speed reproduction to normal-speed reproduction on the basis of a result of comparison between PTS (PTS\_s) of the display picture data at the shift and STC\_medium - (amount of delay due to the shift (shift\_delay) + System\_delay).

8. The method as set forth in claim 7, wherein in the STC generating step, there is set the initial value as "STC\_medium at the time of shift - (shift\_delay + System\_delay)" at the shift from the variable-speed reproduction to normal-speed reproduction when the following requirement is met:

PTS\_s ≥ {STC\_medium at the time of shift - (shift\_delay + System\_delay)}

9. The method as set forth in claim 8, further comprising a shifting step of shifting the recording medium reproduction mode from the variable-speed reproduction to normal-speed reproduction at a time set as the initial value in the STC generating step in units of a picture or in units of a GOP (group of pictures).

10. The method as set forth in claim 7, wherein in the STC generating step, there is set the initial value as PTS\_s at the shift from the variable-speed reproduction to normal-speed reproduction when the following requirement is met:

PTS\_s < {STC\_medium at the time of shift - (shift\_delay + System\_delay)}

11. The method as set forth in claim 10, further comprising a shifting step of shifting the recording medium reproduction mode from the variable-speed reproduction to normal-speed reproduction in units of a picture or in units of a GOP (group of pictures) at a time delayed a time “adjust\_delay” defined as given below from a time when in the STC generating step, there is set the initial value:

Delay time (adjust\_delay) = (STC\_medium at the shift - PTS\_s) -  
(shift\_delay + System\_delay)

12. The method as set forth in claim 7, further comprising a TS packetizing step of TS-packetizing of only compressed picture data to be reproduced in the normal-speed reproduction mode.